Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently amended) An isolated clamp loader complex comprising an *Aquifex* delta prime subunit of a DNA polymerase III-type enzyme, the ~~isolated~~ delta prime subunit~~:~~

~~(i) comprising the amino acid sequence of SEQ ID NO: 126; or~~

~~(ii)~~ being encoded by a nucleic acid molecule hybridizing to the complete complement of SEQ ID NO: 125 under hybridization conditions that are at least as stringent as use of a medium comprising ~~at most about~~ 0.9M sodium citrate buffer at a temperature of ~~at least about~~ 37°C.

2. (Currently amended) The clamp loader complex ~~isolated *Aquifex* delta prime subunit~~ according to claim 1 wherein the *Aquifex* species is *Aquifex aeolicus*.

3-4 (Cancelled)

5. (Currently amended) The clamp loader complex ~~isolated *Aquifex* delta prime subunit~~ according to claim 1 wherein the complex ~~delta prime subunit~~ is purified.

6. (Cancelled)

7. (Currently amended) A DNA polymerase III-type enzyme complex comprising the clamp loader complex according to claim 1 ~~claim 6~~.

8. (Original) A kit comprising:

a container that contains therein either a deoxynucleoside triphosphate or a dideoxynucleoside triphosphate; and

a container that contains therein the DNA polymerase III-type enzyme complex according to claim 7.

9. (New) The clamp loader complex according to claim 1, wherein the hybridization conditions comprise a medium comprising 20% formamide and 0.9M sodium citrate buffer and at a temperature of 42°C, followed by washing in 0.2X sodium citrate buffer at 42°C.

10. (New) The clamp loader complex according to claim 1, wherein the hybridization conditions comprise a medium comprising 5X sodium citrate buffer and at a temperature of 65°C, followed by washing in 5X sodium citrate buffer at 65°C.

11. (New) The clamp loader complex according to claim 1, wherein the delta prime subunit is at least 80 percent identical to the amino acid sequence of SEQ ID NO: 126.

12. (New) The clamp loader complex according to claim 1, wherein the delta prime subunit is at least 90 percent identical to the amino acid sequence of SEQ ID NO: 126.

13. (New) The clamp loader complex according to claim 1, wherein the delta prime subunit is at least 95 percent identical to the amino acid sequence of SEQ ID NO: 126.

14. (New) The clamp loader complex according to claim 1, wherein the encoding nucleic acid molecule is at least 90 percent identical to the nucleotide sequence of SEQ ID NO: 125.

15. (New) The clamp loader complex according to claim 1, wherein the encoding nucleic acid molecule is at least 95 percent identical to the nucleotide sequence of SEQ ID NO: 125.

16. (New) An isolated *Aquifex* delta prime subunit of a DNA polymerase III-type enzyme, the isolated delta prime subunit comprising the amino acid sequence of SEQ ID NO: 126.

17. (New) A clamp loader complex comprising the *Aquifex* delta prime subunit according to claim 16.

18. (New) A DNA polymerase III-type enzyme complex comprising the clamp loader complex according to claim 17.

19. (New) A kit comprising:

a container that contains therein either a deoxynucleoside triphosphate or a dideoxynucleoside triphosphate; and

a container that contains therein the DNA polymerase III-type enzyme complex according to claim 18.